FOOD INFORMATION

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Subject: Pastures

Field Distribution: War Board Members, AAA Committeemen, Extension Editors and Agronomists, BAE Analysts, FDA Marketing Reports Chiefs, SCS, FSA, FCA Regional Information Chiefs.

Suggested Use: Background Information

Our national health, our fighting strength, and the physical rehabilitation of the people of allied lands are directly related to abundant feed production in the United States. Each farmer who increases the production from his hay and pasture lands in 1944 is immediately aiding in maintaining feed supplies for livestock, which produce several prime essentials of our daily diet, including milk, meat and eggs.

THE FEED SITUATION

We are short of the required supplies to feed the record numbers of livestock on U. S. farms on January 1, 1944. This is because of the extensive increases in livestock population and the resulting disappearance of the large feed reserves which were on hand at the beginning of the war.

One-third of the area of the United States, 675 million acres, is covered with range and pasture. West of an imaginary line running from the Gulf of Mexico through Dallas almost due North to Canada total forage production is generally adequate; a few States in this area, however, have less than required for present livestock numbers.

The 100 million acres of pasture that lie east of that same imaginary line offer the greatest opportunity for increasing feed. Here, also the greatest relative deficit of feed exists. In approximately two-thirds of these States, supplies are considerably below requirements.

WHAT FARMERS CAN DO ABOUT IT

Remarkable results can be and have been achieved in pasture growth and feed production by the proper use of fertilizers and by good management. Fall application of superphosphate in several regions, for example, is a profitable practice. The time schedule for applications of superphosphate, ammonium nitrate, and other fertilizers, to obtain increased production should be based on State Agricultural Experiment Station recommendations.

1. More feed. The application of 400 pounds per acre of fertilizer containing 20 percent plant food can be expected to increase the yield of hay by one ton. Pasture yield will be increased to a similar extent. There must be considerable moisture in the soil for fertilizers to exercise their full effect and applications of fertilizers should be made in accordance with this requirement.

2. Reduction in feed costs. With quick-growth-making fertilizer, such as ammonium nitrate, extra animal-harvested feed can be produced at less than half the cost of corn and at less than one-third the cost of producing oats in many important livestock states.

   The increased yield of forage obtained by the use of fertilizer when the harvested grasses are properly cured into high quality hay, will permit a saving of half the concentrates fed to dairy cows.

3. More and better food. For every pound of nitrogen applied to grass and legume pasture in some of the East Central and Southern States enough extra feed was produced to obtain increases of 13 to 19 pounds of 4 percent milk.

   In feeding beef cattle, average increases obtained from the extra feed produced by the application of a pound of nitrogen to pastures were 2.16 and 3.27 pounds of beef in East Central and Southern States, respectively.

FERTILIZER SUPPLIES ARE AVAILABLE

Ammonium nitrate supplies now are large, and in some areas there is a temporary surplus. Superphosphate supplies are increased for all sections of the country except the West Coast. Through the AAA Agricultural Conservation Program, fertilizer is available in varying quantities in different regions. Liming of pastures also is being extensively promoted under this program.

Distribution is one of the problems in the fertilizer situation, but it is expected that several new superphosphate manufacturing plants will be opened before the end of 1944. Problems of distribution can be partially solved by ordering fertilizer as far in advance of use date as possible.

BENEFITS FROM USE OF FERTILIZERS

Nitrogen-- If rains follow shortly after the application of ammonium nitrate, first results in new pasture growth can be generally expected in from 10 days to 2 weeks. In some areas, however, depending upon the kind of grass, the application of ammonium nitrate in summer does not increase production immediately. State Agricultural Experiment Station recommendations explain variations in practices applicable to different areas.

Application of 100 pounds to the acre of ammonium nitrate, or equivalent nitrogen in other forms, may increase pasture growth by half a ton or better.

Greater benefits can be obtained by two applications of 100 pounds each during the year.

For new fall seeding of grass or fall grains both ammonium nitrate and superphosphate can be applied with good results. However, early spring application of ammonium nitrate is the most effective use of this fertilizer.

Superphosphate-- A farmer can attain a production increase of better than a quarter of a ton of hay an acre through the use of 18-percent superphosphate at the rate of 100 pounds to the acre. To attain this production within a year, superphosphate should be applied early. Continuing high production of forage can be assured, however, by applying "super" whenever possible.

The beneficial effects of superphosphate extend over a period of years. Frequently the results do not show to the best advantage until the second year, depending on when and how the "super" is applied.

When used with ammonium nitrate, "super" supplements the quick gains acieved with this fertilizer. In many areas, "super" is essential for the best results with clover, alfalfa and other legumes. In other regions potash is also essential.

PART OF GOOD MANAGEMENT

Good management can extend feeding value and hold the production gains obtained by fertilizers. Consider these suggestions:

1. Study of pasture and crop lands may reveal that low producing land can be converted into pasture land or that some of the pasture land should be used to produce direct crops such as soybeans, corn, dry beans.

2. Carefully selected pasture lands developed to top production capacity are valuable and should share equally with cultivated lands in farm operation plans. Good irrigated pastures, for example, will graze 2 or 3 cows per acre throughout the growing season and often make better net returns than common field crops. Season-long grazing, however, can generally be expected only when supplemental pastures of some kind are provided. These supplemental pastures are helpful and in many cases essential to maintaining green succulent herbage for grazing.

3. Rotation grazing, instead of continuous grazing will allow "rest" periods for increased plant growth. This practice could result in a 10 percent increase in feed nutrients.

4. If livestock are not turned onto the grass in the spring before the pasture growth reaches 3 or 4 inches height, later increase in forage production from the pasture will be gained.

5. Usually much of the increased growth of grasses and legumes obtained by the use of fertilizers comes at the periods of normal excess pasturage. This extra growth may be utilized to the best advantage as silage.

6. When permanent pastures become inadequate in the summer, dairy production can be maintained by moving the cows to supplementary pastures, or by giving them harvested feed in the barn.

7. Stopping grazing in the fall when at least 3 inches of top growth remain will permit the plants to go into winter in a more favorable condition. This practice will contribute to vigorous growth the following spring.

8. Control of weeds by mowing encourages better growth of desirable plants. On a weedy pasture at the Mississippi Experiment Station, part of which was mowed for 3 years, the cattle ate 80 percent of the forage. On a similar unmowed part, they consumed only 50 percent of the forage. The feed on the mowed part was more nutritious.

9. Burning for the removal of weeds is not recommended except under unusual conditions.